

Blatt 3, Aufgabe 1

```
M P := n -> if n=4 then evalf(8, 20) else evalf(2*p(n/2)*P(n/2) /  
(p(n/2)+P(n/2)), 20) end if:
```

```
M p := n -> if n=4 then evalf(4*sqrt(2), 20) else evalf(sqrt(p  
(n/2)*P(n)), 20) end if:
```

```
M seq([4*2^k, P(4*2^k)], k=0..5);  
[4, 8.], [8, 6.6274169979695207810], [16, 6.3651957561490562212], [32,  
6.3034498148585121972], [64, 6.2882367704918085256], [128,  
6.2844472598849136910] (1.1)
```

```
M seq([4*2^k, p(4*2^k)], k=0..5);  
[4, 5.6568542494923801952], [8, 6.1229349178414363478], [16,  
6.2428903045161045712], [32, 6.2730969810918785278], [64,  
6.2806623139095058248], [128, 6.2825545018655457363] (1.2)
```

```
M p(128)/2 < Pi and Pi < P(128)/2;  
3.141277251! q and q! 3.142223630 (1.3)
```

Blatt 3, Aufgabe 2

```
M plots[animatecurve]([1/2*t*cos(t), 1/2*t*sin(t), t=0..8*Pi],  
view=[-15..15, -15..15], numpoints=600);
```

